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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,752	08/29/2000	Shinya Yamamoto	35.C14744	2467

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EXAMINER

GRAINGER, QUANA MASHELL

ART UNIT PAPER NUMBER

2852

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/650752

Applicant(s)

Shinya et al

Examiner

Quana Grainger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) [] Responsive to communication(s) filed on
2a) [] This action is FINAL. 2b) [] This action is non-final.
3) [] Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) [] Claim(s) 1-2, 5-16, 18-21 is/are pending in the application.
4a) Of the above claim(s) is/are withdrawn from consideration.
5) [] Claim(s) is/are allowed.
6) [] Claim(s) 1, 5-7, 10-12 is/are rejected.
7) [] Claim(s) 2, 8, 13-16, 18-21 is/are objected to.
8) [] Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) [] The specification is objected to by the Examiner.
10) [] The drawing(s) filed on is/are: a) [] accepted or b) [] objected to by the Examiner.
11) [] The proposed drawing correction filed on is: a) [] approved b) [] disapproved by the Examiner.
12) [] The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) [] Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
14) [] Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
15) [] Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) [] Notice of References Cited (PTO-892)
2) [] Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) [] Information Disclosure Statement(s) (PTO-1449) Paper No(s) 20

- 4) [] Interview Summary (PTO-413) Paper No(s)
5) [] Notice of Informal Patent Application (PTO-152)
6) [] Other:

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement has been considered.

Claim Objections

2. Claims 13-16 and 18-21 are objected to because claim 13 recites "...by the output one of the memory ...". Should this read - "... by the output of one of the memory- -? Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 5-7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al. (cited reference 5,307,129) in view of Hayashi (cited reference JP9-62078). Miura et al. teaches an image forming apparatus comprising: an opening and closing member being openable and closable; an exchanging exchangeable member detachably attachable to a body of said image forming apparatus and including a developer container for containing developer; developer amount detecting means for detecting an amount of the developer contained said developer container; a memory for storing configured to store information concerning the amount of the developer detected by said detecting means; control means for causing said detecting means to perform a detection operation for the developer a plurality of times, performing a confirmation process for confirming a result of said detection operation to confirm a detection result, and updating the information stored in said memory after confirming the detection result; and output means for outputting the information stored in said memory, wherein said output means outputs the information concerning the amount of the developer until the detection result is confirmed by the confirmation process from a timing after power from a power source of said apparatus is inputted, or after said exchangeable member is loaded or after said opening and closing member is closed, and outputs the updated information after the detection result is confirmed. The image forming apparatus further comprising a display, wherein the information outputted from said output means is indicated on said display.

The information concerning the amount of developer is remaining developer amount

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information. The information concerning the amount of developer is information indicating that a remaining developer amount is less than a predetermined amount. The information concerning the amount of developer is information indicating that no developer remains. The information concerning the amount of developer is information indicating that a remaining developer amount is less than a predetermined amount and information indicating that no developer remains.

Miura et al. does not teach a confirmation process.

Hayashi teaches a confirmation process for a developer detection means (abstract; abnormal detector). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Hayashi with the image forming device of Miura et al. to prevent response to erroneous developer detection information (abstract).

Miura et al. does not teach an electronic apparatus having a display, and said output means outputs the information to the electronic apparatus or discusses a video controller configured to developing image data transmitted from an external apparatus and producing an image signal. The examiner takes official notice that it is known in the art to use a computer having a display and a video controller configured to developing image data transmitted from the computer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Miura et al. with an image forming device that uses an external computer to obtain a method for accurately detecting an empty state of a developer supplying member (column 3, line 65- column 4, line 2).

Allowable Subject Matter

6. Claims ^{2, 8} 13-16 and 18-21 are objected to because of the objection to claim 13 discussed
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above, but would be allowable if rewritten to overcome the objection. Claim 13 recites an image forming apparatus comprising: a developer container for containing configured to contain developer; developer amount detecting means for detecting an amount of the developer contained in said developer container; a memory for storing configured to store information concerning the amount of the developer detected by said detecting means; control means for updating the information concerning the amount of the developer stored in said memory in accordance with a detection result of a detection operation of said detecting means; and output means for outputting the information stored in said memory, wherein said output means outputs the one of the information concerning the amount of the developer stored in said memory and the information concerning the amount of the developer obtained from the detection result of said detecting means the developer amount indicated by the output one of the memory-stored information and the detection-result information being smaller than the developer amount indicated by the other of the memory stored information and the detection-result information, and **wherein said control means does not update the information concerning the amount of the developer stored in said memory when the amount indicated by the information concerning the amount of the developer obtained from the detection result of said detecting means is larger than the amount indicated by the information concerning the amount of the developer stored in said memory.**

Conclusion

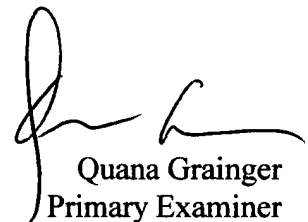
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana Grainger whose telephone number is 703-308-7616. The examiner

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can normally be reached on weekdays between the hours of 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 703-308-1373. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.



Quana Grainger
Primary Examiner
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QG
December 15, 2003